REMARKS

Summary of the Amendment

Upon entry of the above amendment, the specification and claims 29, 41, 49, 51, 54, 56, 78, 81 and 82 will have been amended. Additionally, claims 83-98 will have been added. Accordingly, claims 29-98 will be pending, with claims 29, 81 and 82 being in independent form.

Summary of the Official Action

In the Office action, the Examiner objected to the Abstract and the drawings. The Examiner also rejected claims 40, 55, 61, 62 and 64 as indefinite. Finally, the Examiner rejected elected claims 29-82 over the applied art of record. By the present amendment and remarks, Applicant submits that the rejections have been overcome, and respectfully requests reconsideration of the outstanding Office Action and allowance of the present application.

Interview of June 6, 2003

Applicant appreciates the courtesy extended by Examiner Dang Le in the interview of June 6, 2003. In that interview, Applicant's representative discussed, among other things, that Applicant would be submitting a new Abstract which did not include the word "comprising". Applicant's representative also discussed amending Fig.1 to schematically

show an aggregate, a gearbox/flywheel and an engine. The Examiner agreed that such an amendment would overcome the drawing objection. Applicant's representative also pointed out that one having ordinary skill in the art would understand the term "machine's mains" and that the claims are therefore not indefinite. In response, the Examiner agreed to reconsider the rejection if such arguments and explanations were presented in a response.

Applicant's representative also pointed out that SEGUCHI lacks any disclosure to non-movably coupling both the first and second stators to the casing. The Examiner agreed. However, the Examiner explained that this aspect appeared to be disclosed in Fig. 1 of REDZIC. The Examiner noted that REDZIC discloses a stator holding member 41 that separates two stators, i.e., member 41 separates stator 40' from 40". On the other hand, the Examiner did acknowledge that, unlike instant invention which shows the stators 1 and 4 being separated by a circumferentially arranged holding member, the stators 40'-40"' in REDZIC are oriented axially with the separators 41 acting to axially separate the stators.

In response, Applicant's representative pointed out that REDZIC merely discloses the use of a single stator with segmented windings 40'-40"'. It was specifically emphasized that only a single stator is utilized for both rotors in REDZIC, and that the Examiner has identified no disclosure in REDZIC indicating that two stators are utilized.

The Examiner agreed to consider these arguments in Applicant's response. Moreover, the Examiner agreed to withdraw the instant prior art rejections, subject to further search and

consideration, if claims 29, 81 and 82 were amended to recite that the first and second stators are non-movably coupled to a casing and that the first and second stators are arranged to face in opposite directions relative to at least one circumferentially arranged stator holding member.

However, at this time Applicant is not amending the claims in the manner indicated by the Examiner.

Objections to the specification, is Moot

The Examiner objected to the disclosure because the abstract contained the word "comprising".

By this amendment, it is believed that this issue has been addressed. Specifically, Applicant has herein presented a new Abstract which does not contain the word "comprising".

Accordingly, the objection is believed to be rendered moot and the Examiner is requested to withdraw this objection.

Objections to the drawings, is Moot

The Examiner objected to the drawings because certain claimed features were not shown.

By a concurrently filed drawing amendment, it is believed that this issue has been addressed. Specifically, Applicant has presented a new Fig. 1 which schematically shows an aggregate, a gearbox and flywheel and an engine. Pursuant to the discussions in the Interview, these changes were deemed sufficient to overcome the instant objection.

Fig. 3 is also being amended to correct a minor error, i.e., ref. No. 14 is being changed to ref. No. 11.

Accordingly, the objection is believed to be rendered moot and the Examiner is requested to withdraw this objection.

Rejection Under 35 U.S.C. § 112, Second Paragraph, is Moot

Claims 40, 55, 61, 62 and 64 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite.

As requested by the Examiner, Applicant is herein providing an explanation of the term "machine's mains". In this regard, Applicant notes that this term is known in the art to designate power cables or conduits, i.e., the main cables of a system wherein the cables carrying high current and/or voltage.

Accordingly, the rejection have been rendered moot in view of the above-noted clarification and the Examiner is requested to withdraw the indefiniteness rejection.

Traversal of Rejection Under 35 U.S.C. § 102(b)

Applicant traverses the rejection of claims 29-34, 37, 40-48, 50-53, 55 and 78-80 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,744,895 to SEGUCHI et al.

The Examiner asserted that this document discloses all the features recited in these claims including the first and second rotors 1210 and 1310. Applicant respectfully traverses this rejection.

As a preliminary matter, the Examiner essentially agreed to reconsider and withdraw this rejection based upon arguments made during the interview and upon the filing of a response, i.e., that SEGUCHI clearly lacks any disclosure or suggestion with regard to non-movably coupling both the first and second stators to the casing, as recited in at least independent claim 29 as now amended. Accordingly, Applicant submits that the above noted claims are allowable at least for this reason.

Furthermore, Applicant submits that SEGUCHI fails to disclose the invention as defined by at least independent claim 29 as amended. Notwithstanding the Office Action assertions as to what SEGUCHI discloses, Applicant submits that SEGUCHI fails to disclose, inter alia, first and second stators that are non-movably coupled to a casing, as recited in claim 29.

As Applicant pointed out in the Interview, SEGUCHI lacks two stators which are non-

movably connected or mounted to the casing, i.e., two stators which are either prevented from rotating relative to the casing or coupled to the casing. Indeed, it is clear from Fig. 1 of SEGUCHI, that while stator winding 1411 is apparently fixed to the casing 1710, the same cannot be said for winding 1211. To the contrary, it is clear from Fig. 1 that winding 1211 rotates with shaft 1213. Moreover, the Examiner has acknowledged in the Interview that SEGUCHI lacks any disclosure to two stators which are non-movably mounted relative to a casing.

Thus, Applicant submits that the above-noted claims are not disclosed, or even suggested, by any proper reading of SEGUCHI.

Applicant further notes that, for an anticipation rejection under 35 U.S.C. § 102(b) to be proper, each element of the claim in question must be disclosed in a single document, and if the document relied upon does not do so, then the rejection must be withdrawn.

Because SEGUCHI fails to disclose at least the above mentioned features as recited in independent claim 29, Applicant submits that SEGUCHI does not disclose all the claimed features recited in at least independent claim 29.

Furthermore, Applicant submits that dependent claims 30-34, 37, 40-48, 50-53, 55 and 78-80 are allowable at least for the reason that these claims depend from allowable base claims and because these claims recite additional features that further define the present invention. In particular, Applicant submits that no proper reading of SEGUCHI discloses

or suggests, in combination: that at least one of the first and second motors is of a three-phase type as recited in claim 30; that the first rotor is mechanically coupled to the engine via at least one rotating shaft as recited in claim 31; that the engine comprises an internal combustion engine as recited in claim 32; that the first rotor is mechanically coupled to the internal combustion engine via at least one rotating shaft as recited in claim 33; that the second rotor is mechanically coupled to the aggregate via a rotating part as recited in claim 34; that the electric motor system further comprises a gearbox, wherein the first electric motor is mechanically connected to the engine via the gearbox as recited in claim 37; that the first electric motor is connected to at least one of at least one external electric circuit, and a machine's mains as recited in claim 40; that each of the first and second motors are mounted in the casing as recited in claim 41; that at least one of the first and second electric motors is one of an asynchronous type motor, a synchronous type motor, and a reluctance type motor as recited in claim 42; that an axis of the first rotor is aligned with an axis of the second rotor, such that the first and second rotors of the first and second electric motors share a common axis of rotation as recited in claim 43; that the first rotor comprises one of an inner rotor and an outer rotor as recited in claim 44; that the second rotor comprises one of an inner rotor and an outer rotor as recited in claim 45; that the first rotor comprises an inner rotor and the second rotor comprises an outer rotor, each rotating about a common axis as recited in claim 46; that the first rotor comprises an inner rotor and the second rotor comprises an outer rotor

as recited in claim 47; that the electrical motor system further comprises a mutual stator plate system as recited in claim 48; that each of the first and second rotors are rotatable with respect to the mutual stator plate system as recited in claim 50; that the electronic power system comprises at least one of a component and an external electric circuit, which is mounted in the casing as recited in claim 51; that the casing contains at least one of the first and second motors as recited in claim 52; that the casing surrounds at least one of the first and second motors as recited in claim 53; that the electronic power system supplies to a mains connection at least one of a direct current, an alternating current, and a three-phase current as recited in claim 55; that each of the first and second electric motors are mounted in the casing as recited in claim 78; that each of the first and second electric motors comprise one of an asynchronous motor, a synchronous motor and a reluctance motor as recited in claim 79; and that each of the first and second rotors rotate with respect to a common axis as recited in claim 80.

Applicant requests that the Examiner reconsider and withdraw the rejection of the above-noted claims under 35 U.S.C. § 102(b).

Traversal of Rejections Under 35 U.S.C. § 103(a)

Applicant respectfully traverses the rejection of claims 35 and 36 under 35 U.S.C. § 103(a) as unpatentable over SEGUCHI in view of US patent 5,912,516 to ATKINSON et al.

Applicant also respectfully traverses the rejection of claims 38, 39 and 54 under 35 U.S.C. § 103(a) as unpatentable over SEGUCHI in view of US patent 6,133,659 to RAO.

Applicant additionally respectfully traverses the rejection of claims 49, 56-77, 81 and 82 under 35 U.S.C. § 103(a) as unpatentable over SEGUCHI in view of US patent 5,793,136 to REDZIC.

The Examiner asserted that SEGUCHI fairly discloses all of the claimed features recited in these claims except for the following: an aggregate in the form of a turbocharger and turbo-engine; a first electric motor integrated with an engine or flywheel; and a mutual stator plate system having first and second stators. However, the Examiner asserted that ATKINSON discloses an aggregate in the form of a turbocharger and turbo-engine, that RAO discloses a first electric motor integrated with an engine or flywheel, and that REDZIC discloses a mutual stator plate system having at least first and second stators. Applicant respectfully traverses each of these rejections.

Again, as a preliminary matter, the Examiner essentially agreed to reconsider and withdraw this rejection based upon arguments made during the interview and upon the filing of a response, i.e., that none of the applied documents disclose or suggest non-movably coupling both the first and second stators to the casing, as recited in at least independent claims 29, 81 and 82 as now amended. Accordingly, Applicant submits that the above noted claims are allowable at least for this reason.

Furthermore, Applicant submits that no proper combination of SEGUCHI and ATKINSON, SEGUCHI and RAO, and SEGUCHI and REDZIC discloses or suggests the invention as defined by at least independent claims 29, 81 and 82 as amended. Notwithstanding the Office Action assertions as to what these documents disclose, Applicant submits that no proper combination of these documents discloses or suggests, inter alia, first and second stators that are non-movably coupled to a casing, as recited in claim 29, inter alia, first and second stators that are non-movably mounted to a casing, as recited in claim 81, and inter alia, first and second stator systems that are coupled to the casing, wherein the first and second stator systems are prevented from rotating relative to the casing, as recited in claim 82.

As indicated above, SEGUCHI lacks two stators which are non-movably connected or mounted to the casing, i.e., are either prevented from rotating relative to the casing or fixed to the casing. Indeed, it is clear from Fig. 1 of SEGUCHI, that while stator winding 1411 is apparently fixed to the casing 1710, the same cannot be said for winding 1211. To the contrary, it is clear from Fig. 1 that winding 1211 rotates with shaft 1213. Moreover, the Examiner has acknowledged in the Interview that SEGUCHI lacks any disclosure to two stators which non-movably mounted relative to a casing.

Moreover, ATKINSON relates to an alternator/motor that is coupled to a turbine. On the other hand, it is clear that this document lacks first and second motors, much less, two

stators which are non-movably connected or mounted to the casing, i.e., are either prevented from rotating relative to the casing or fixed to the casing. Indeed, it is clear from Figs. 1-4 that only a single motor and a stator is utilized.

Similarly, RAO relates to an in-line generator that is coupled to a flywheel 26. On the other hand, it is clear that this document lacks first and second motors, much less, two stators which are non-movably connected or mounted to the casing, i.e., are either prevented from rotating relative to the casing or fixed to the casing. Indeed, it is clear from Fig. 2 that only a single motor and a stator is utilized.

While Applicant acknowledges that REDZIC apparently discloses connecting a stator 40 to the casing 54, it is clear that there is no apparent disclosure with regard to two stators which are non-movably connected or mounted to the casing. Indeed, it is clear from a proper reading of REDZIC that while there is disclosure regarding the stator being formed of stator components 40'-40''' (which are separated by separator members 41), there is no disclosure indicating that these components are separate or distinct stators. To the contrary, this document emphasizes that only a single stator is needed (see col. 1, lines 26-27). Thus, Applicant submits that contrary to the Examiner's assertions, REDZIC does not disclose two stators, much less, two stators coupled or non-movably mounted or connected to the casing.

Thus, Applicant submits that the above-noted documents fails to disclose or suggest the features recited in at least independent claims 29, 81 and 82. Because no proper

modification or combination of SEGUCHI, ATKINSON, RAO and REDZIC discloses or suggests at least the above-noted features of the instant invention, Applicant submits that these documents fails to render unpatentable the combination of features recited in at least independent claims 29, 81 and 82.

Furthermore, Applicant submits that there is no motivation or rationale disclosed or suggested in the art to modify SEGUCHI in the manner asserted by the Examiner. Nor does the Examiner's opinion provide a proper basis for these features or for the motivation to modify this document, in the manner suggested by the Examiner. Therefore, Applicant submits that the invention as recited in at least independent claims 29, 81 and 82 is not rendered obvious by any reasonable inspection of these disclosures.

Applicant directs the Examiner's attention to the guidelines identified in M.P.E.P section 2141 which state that "[i]n determining the propriety of the Patent Office case for obviousness in the first instance, it is necessary to ascertain whether or not the reference teachings would appear to be sufficient for one of ordinary skill in the relevant art having the reference before him to make the proposed substitution, combination, or other modification." *In re Linter*, 458 F.2d 1013, 1016, 173 USPQ 560, 562 (CCPA 1972).

As this section clearly indicates, "[o]bviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves

or in the knowledge generally available to one of ordinary skill in the art. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992)."

Moreover, it has been legally established that "[t]he mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990) .... Although a prior art device "may be capable of being modified to run the way the apparatus is claimed, there must be a suggestion or motivation in the reference to do so." 916 F.2d at 682, 16 USPQ2d at 1432.). See also *In re Fritch*, 972 F.2d 1260, 23 USPQ2d 1780 (Fed. Cir. 1992) (flexible landscape edging device which is conformable to a ground surface of varying slope not suggested by combination of prior art references).

Additionally, it has been held that "[a] statement that modifications of the prior art to meet the claimed invention would have been "` well within the ordinary skill of the art at the time the claimed invention was made'" because the references relied upon teach that all aspects of the claimed invention were individually known in the art is not sufficient to establish a prima facie case of obviousness without some objective reason to combine the teachings of the references. *Ex parte Levengood*, 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993)."

Furthermore, Applicant submits that dependent claims 35, 36, 38, 39, 49, 54 and 56-

77 are allowable at least for the reason that these claims depend from allowable base claims and because these claims recite additional features that further define the present invention. In particular, Applicant submits that no proper combination of SEGUCHI, ATKINSON, RAO and REDZIC discloses or suggests, in combination: that the aggregate comprises at least one of a turbo-engine and a turbocharger as recited in claim 35; that the aggregate comprises at least one of a turbo-engine and a turbocharger as recited in claim 36; that the first electric motor is at least one of integrated with the engine and integrated with a flywheel of the engine as recited in claim 38; that the engine comprises a flywheel and wherein the first electric motor is structurally integrated with the flywheel as recited in claim 39; that the first and second stators are coupled to the mutual stator plate system the first stator forming part of the first motor and the second stator forming part of the second motor as recited in claim 49; that wherein the casing houses at least one of the first and second motors, wherein the casing includes one of a cooling system and a liquid cooling system as recited in claim 54; that wherein the first stator includes at least two winding systems as recited in claim 56; that wherein the two winding systems are galvanically separated from one another as recited in claim 57; that the at least two winding systems are coupled magnetically with a main flux of at least one of the first and second motors as recited in claim 58; that the at least two winding systems are connected to separate electronic power circuits as recited in claim 59; that the separate electronic power circuits are galvanically separated from one another as

recited in claim 60; that at least one of the at least two winding systems is connected via a rectifier bridge to at least one of a direct current supply, a battery-fed mains, and a machine's mains, whereby power can be exchanged in one direction as recited in claim 61; that at least one of the at least two winding systems is connected via a transistor bridge to at least one of a direct current supply, a battery-fed mains, and a machine's mains, whereby power can be exchanged in both directions as recited in claim 62; that at least one of the first and second motors functions as a generator and as a motor as recited in claim 63; that the generator is configured to charge a connected machine's mains as recited in claim 64; that at least one of the first and second motors functions as a generator and as a starter as recited in claim 65; that the first motor functions as the generator and as the starter, and wherein the starter is mechanically coupled to the engine as recited in claim 66; that each of the at least two winding systems are configured to allow a galvanically separable electric power exchange to occur between circuits connected to the winding systems as recited in claim 67; that the at least two winding systems are controlled via electronically controlled switches as recited in claim 68; that the electronically controlled switches are configured to take over control of electric parameters from the at least two winding systems as recited in claim 69; that the at least two winding systems are coupled to non-controllable electronic power elements as recited in claim 70; that the non-controllable electronic power elements comprise diodes as recited in claim 71; that each of the at least two winding systems is galvanically independent

of the other winding system and is connected with electromechanical function groups on generally different voltage levels as recited in claim 72; that the at least two winding systems are closely magnetically coupled such that an electromagnetic power exchange occurs between the at least two winding systems independent of rotor rotation according to a transformer principle as recited in claim 73; that the at least two winding systems are weakly magnetically coupled such that a slight electromagnetic influence results on the at least two winding systems as recited in claim 74; that a freely selectable electromagnetic power exchange can occur between the at least two winding systems and a rotor shaft connected to one of the first and second rotors as recited in claim 75; that the freely selectable electromagnetic power exchange is adapted to occur by controlling electromagnetic parameters as recited in claim 76; and that the electromagnetic parameters comprise at least one of currents and flux linking of at least one of the at least two winding systems as recited in claim 77.

Accordingly, Applicant requests that the Examiner reconsider and withdraw the above-noted rejection under 35 U.S.C. § 103(a) and indicate that these claims are allowable over the applied art of record.

CONCLUSION

Applicant respectfully submits that each and every pending claim of the present invention meets the requirements for patentability under 35 U.S.C. § § 112, 102 and 103 and

respectfully requests the Examiner to indicate allowance of each and every pending claim of the present invention.

In view of the foregoing, it is submitted that none of the references of record, either taken alone or in any proper combination thereof, anticipate or render obvious the Applicant's invention, as recited in each of the pending claims. The applied references of record have been discussed and distinguished, while significant claimed features of the present invention have been pointed out.

Further, any amendments to the claims which have been made in this response and which have not been specifically noted to overcome a rejection based upon the prior art, should be considered to have been made for a purpose unrelated to patentability, and no estoppel should be deemed to attach thereto.

The Commissioner is hereby authorized to charge any fees necessary for consideration of this amendment to deposit account No. 19-0089.

Respectfully submitted,
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